NOVAPPLE Newsletter

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WHY COMPUTERS COST SO MUCH!

An Editorial by Andy Reese

I constantly hear the question from people "why do Apple products cost so much?" It comes from Apple users, from educators, from people trying to figure out if they want an Amiga or a Mac, a Tandy IBM compatible or an Apple IIe. In most cases they point out how they can get the alternative computer for much less than an Apple system.

Then comes the financial report from Apple that their net income more than doubled in 1986 over 1985 and they have increased their gross profit margins significantly. This was on the same sales volume as 1985. For people asking the "why" question, this seems to add insult to injury. Why doesn't Apple lower their prices if they have lowered their costs?

I do not want to sound as if I am defending Apple's pricing strategies, as I too am an end user always looking for the best deal. What one must look at when purchasing a computer is the value of the machine or software. The value includes the service and support, both current and in the future. This is why Apple products cost more than the competition.

As Alan Kay said in May, "the low cost producer cannot be a market innovator". This is true, as you look at the alternatives you will see very little new technology, but features that have been copied from the market leader and innovator. Apple has invested heavily in the past four years in research and development of products and ideas that today are becoming the standard. Just go back to 1983 and see how much you find written in trade magazines on the following items:

Windows	Pull Down Menus
Desk Accessories	Icons
Mouse	Bit-mapped Graphics
3.5" disk drives	Desktop publishing

[CONTINUED ON PAGE 6.]

APPLEWORKS ADD-ONS!!

By Dave Harvey

As a confirmed Appleworks user, I will continue to use AppleWorks as one of my workhorse programs. However, on the other hand, as with other AppleWorks users, I recognize that there are improvements that can be made in the program.

So when I read about some new programs that were now available to correct some shortcomings in the program, I became quite interested. I also noticed that they weren't expensive either. One problem with Appleworks I've found is shortcomings with disk file handling. Although you can specify a complete path for the file you want to add to the desktop, you must first know what subdirectories on on your disk. In order to do this you must, for instance, first go to "other activities" and catalog the disk to find the subdirectories and then remembering what subdirectory to access, go back to the "add files option" and specify the pathname. This is cumbersome to say the least. If you want to change to another subdirectory and you failed to remember what other subdirectories were on the disk, you would have to go thru the whole process all over again. Another problem with file handling is that there is no way within Appleworks to unlock a file or rename a file. This can be a problem, for instance, if you want to revise a file on the disk and the file is locked. You must quit AppleWorks and use a file utility to unlock the file.

The first program I heard about was the program Pathfinder. This program, by Randy Brandt, makes a patch to AppleWorks 2.0 by replacing the disk formatting option with a new menu. This new menu lets you rename, lock and unlock files, drop the current subdirectory from the pathname and most importantly, it lets you add new subdirectories to the pathname by choosing them from a list. The program comes on a 5 1/4 inch disk with documentation for the program on the disk in an AppleWorks word processor file. You're expected to print out the file before going any further. There are an number of other files on the disk as well. One is a demo copy of the program that can be uploaded to bulletin boards or distributed to anyone interested in purchasing the program. This is a promotional version of Pathfinder that is not fully operational.

[CONTINUED ON PAGE 10.]

DISCOUNTS

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- NEC P6, LQ ..... $495.00 *
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Authorized Dealer
✦ 6443 Old Alex. Ferry Rd, Clinton, MD (301)856-2500
✦ 9636 Ft. Meade Rd, Laurel, MD (301)953-1110 or (301)792-0600
✦ 12204 Rockville Pike, Rockville, MD (301)881-2810 ✦

Clinton Computer -- A Full-Service Dealership!

Five Stores Cover Metro Area

Clinton Opens Fifth Store -- in Rockville

Clinton Computer, the Metro area's largest independent retail computer dealer, now has five stores -- in Clinton, Rockville and Laurel, MD, and in Vienna and Alexandria, VA. We are authorized dealers for Apple™ microcomputers at all five locations.

In addition, our Clinton and Alexandria stores are authorized IBM™ Personal Computer dealerships. We also sell printers, monitors, software, supplies, and service.

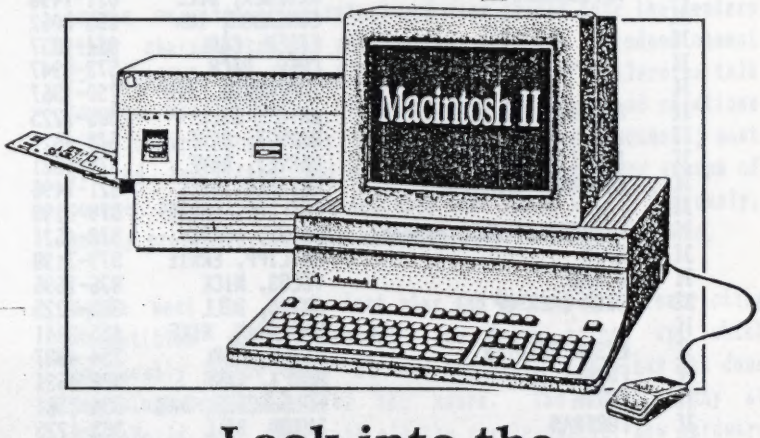
Clinton Computer's Old Town Alexandria Store

The company also operates a huge 3600-square-foot service and repair facility in Clinton, with satellite repair shops at the Laurel, Vienna, Rockville and Alexandria stores.

Clinton Computer was founded in 1978 by co-owners Art Lundquist and Chuck Perilli. It began as a two-man consulting firm on the fourth floor of an office building and has grown into a multi-million-dollar retail business.

DISCOUNT POLICY FOR NOVAPPLE MEMBERS

CLINTON COMPUTER offers NOVAPPLE members a 25% DISCOUNT OFF THE LIST PRICE on all non-allocated Apple brand peripherals (no CPU's), software and AppleCare. For upgrades, the 25% discount applies to both the parts and normal labor rate. Discount is available to persons who have been NOVAPPLE members for at least 3 months. Discount cannot be applied retroactively. NOVAPPLE members need to present their cards up-front. No phone or mail orders, please. Discount cannot be used in combination with other promotions. Products on allocation from Apple are excluded from this offer. Clinton Computer reserves the right to change this policy at any time.



Look into the New Macintosh II

The new Macintosh™ II. There's a lot to look into. And it's easy. Just lift off the cover, and you're inside a whole new world. A world that makes it simple for you to adapt, expand, upgrade, and configure the Macintosh II to meet *your* needs. And with color, too!

What's more, the Macintosh II is the fastest and most powerful member of the Macintosh family -- processing information at four times the speed. And with six internal expansion slots, you have tremendous expansion capabilities. Which means there's practically no limit to what it can do for your business.

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Come in and take a close look at the new Macintosh II. There's a lot more to it than meets the eye -- inside and out!

Training Available

Clinton Computer offers a comprehensive training program on both Apple™ and IBM™ microcomputers. Classes, currently scheduled through October, include New Owners' Workshops, Mac Graphics, AppleSoft BASIC, AppleWorks, Lotus 1-2-3, Microsoft Works and more!

For registration information, contact Paula Majerowicz at our Laurel location -- 953-1110.

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SUBJECT	NAME	PHONE
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APPLE PIE WORD PROCESSOR	LAUFER, GABOR	765-4539
APPLESOFT	ANTON, BILL	385-1225
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	PANKIN, MARK	524-0937
	PHILIPP, ERNIE	379-7198
APPLEWORKS	KRIEGER, BILL	821-1496
	CONCAUGH, INA	256-3062
	EISEN, CARL	354-4837
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	THORNBURG, JIM	750-1367
APPLEWRITER][	ANTON, BILL	385-1225
	HARVEY, DAVE	578-4621
ASCII EXPRESS	HARVEY, DAVE	578-4621
ASSEMBLY LANGUAGE	KRIEGER, BILL	821-1496
	PHILIPP, ERNIE	379-7198
COMMUNICATIONS, Modems	HARVEY, DAVE	578-4621
CP/M	PHILIPP, ERNIE	379-7198
D BASE	VELOS, NICK	836-1696
DISK BACK-UP	ANTON, BILL	385-1225
	UNGERMAN, MIKE	455-3441
EPSON PRINTER	EISEN, CARL	354-4837
FORMAT II	HAREY, DAVE	578-4621
FORTH	HOLDGREIWE, DAN	354-3561
FORTRAN	ANTON, BILL	385-1225
	KRIEGER, BILL	821-1496
GAMES	LAUFER, GABOR	765-4539
INVESTMENT PROGMS/STOCKS	PANKIN, MARK	524-0937

SUBJECT	NAME	PHONE
LOCKSMITH	ANTON, BILL	385-1225
MACINTOSH	PANKIN, MARK	524-0937
	LOVE, JOHN	569-2294
MATH / STAT	PANKIN, MARK	524-0937
MULTIPLAN	PHILIPP, ERNIE	379-7198
	BALDWIN, MILES	938-8457
	LUCAS, TOM	321-9593
OPS RES / MGT SCIENCE	PANKIN, MARK	524-0937
PFS : FILE	LUCAS, TOM	321-9593
PFS : REPORT	LUCAS, TOM	321-9593
PRODOS	KRIEGER, BILL	821-1496
PROWRITER PRINTER	KRIEGER, BILL	821-1496
SCREEN WRITER II	PETRENKO, PETE	321-7332
	LUCAS, TOM	321-9596
SIDER HARD DISK	THORNBURG, JIM	750-9593
SUPER TEXT	VELOS, NICK	836-1696
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VISI CALC	THORNBURG, JIM	750-1367
VISI DEX	LAUFER, GABOR	765-4539
VISI FILE	FOX, ELLIOT	780-4403
WORD STAR	PHILIPP, ERNIE	379-7198

YOU MAY LEAVE QUESTIONS ON THE BULLETIN BOARD WITH YOUR NAME AND NUMBER. IF YOU ARE INTERESTED IN VOLUNTEERING YOUR TIME ON ANY NEW APPLE ITEMS, PLEASE CONTRACT ERINE PHILIPP.

Heads In The Sand!

Form and Substance, or Ruminations on AppleWorld.
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There is an interesting trade-off between style and content, between presentation and performance, between packaging and value, between show-biz and engineering. AppleWorld 87 had a little of each. The show (where else?) was at Universal Studios' amphitheater in Los Angeles. The hard content was the new Macintosh II.

Everything you heard about the Macintosh II is true -- and more. It is, as one writer put it, enough to induce lust. I want one. The Macintosh SE ("Slightly Enhanced"?) is Something Else. Gassee tells us that he is as proud of the SE as he is of the II. I guess he is entitled to his opinion. Maybe that's his version of the soft-shoe. If to get a Mac you have to convince management on the basis of its "IBM-compatibility" (which nobody with a Mac would use anyway) and don't want to pay the price of an IBM to buy a Mac II, then this is the machine for you.

Otherwise, if you don't need the whizzy features of the Mac II, buy a Mac+. Until Apple drops the Mac Plus line perhaps a year from now, I would expect its price to slowly drop, making it more and more attractive and not significantly less functional than an SE. Be prepared to spend a lot more for software than you have in the past. But I already said that a few months ago. Apple was proud of their new offerings.

They pulled in 3000 of their favored dealers, VARs (Value-Added Retailers, meaning they buy computers and resell them bundled with some expensive software or peripherals), educational administrators from all levels, corporate bigwigs, developers, and a few user groups. The user group representatives paid their own freight; nearly everybody else went at Apple's expense. You have to realize that the people

[CONTINUED ON PAGE 5.]

[SAND FROM PAGE 4.]

who have already committed to Apple computers need no persuasion to come see the latest toys, even if it costs them several big bills for the priviledge. Or maybe especially if it does, as long as the priviledge is restricted to a select few -- a classic Tom Sawyer story comes vaguely to mind, where Tom got his friends to pay him for the priviledge of doing his chores.

Apple has a list of over 800 user groups around the country; 150 of them were invited to send one person to AppleWorld. Now when you are talking about taking three days off work, flying across the country -- Apple set up travel arrangements with American Airlines; I checked their "special" price and found it to be more than double what I paid Eastern (I don't think many user group delegates flew American) -- and shelling out $100 a night to stay in the conference hotel, you are almost into the price of a new Mac just to see one at close range. However, I think Apple became worried the last week before the show that not enough user groups would respond to the invitation. It doesn't look good. That's how I found out about it. Our little group was not invited, but I responded to a general invitation at the last minute. I'm not at all sorry I went, but it didn't cost me as much as some of the others; I have a sister in the LA area, and I

stayed there. And by mixing a little business with the trip, it doesn't cost so much for the air fare. The larger groups subsidized their delegates.

In all fairness, I have to say that Apple is trying hard to put some meat behind the fluff. A year ago Apple realized that user groups were an important resource. OK, tell me, did you buy a Mac because you read about it or saw it on TV or trusted that nice company with a whimsical name like Apple, or did you buy it because somebody with a Mac showed you what a great machine it is? Where do you learn more about how to put your Mac through its paces, at the dealer where you bought it, or from another user?

So Apple created a "User Group Evangelist" position and filled it with a hard-working person named Ellen Leanse (pronounced "Lee-ans"). This year Apple added two more people to help her. As near as I can tell, the function of an "evangelist" is to spread the gospel -- in the case of computers, to convince people that the Mac is really an insanely great computer. Apple created the idea of an evangelist back when the Mac was in the making. Guy Kawasaki went around to developers and showed them what the machine could do, and they got all excited about it. He was so successful that Apple has since also created a position called "Business Evangelist" to try to do the same thing to corporate buyers.

I don't know if he is successful or not, but Apple is clearly trying to position the Mac out of the reach of us non-business users. Now if user groups needed to be evangelized, I could see the need for an evangelist. I rather think Ellen's job is to evangelize Apple about their best customers. She is making some progress: last year Apple invited less than ten user group representatives to AppleWorld.

This year John Sculley, Jean-Louis Gassee, and the Mac II development team all came by and spent some time talking to the user group delegates -- and listening! But there is still room for improvement. I don't know how many dealers went to AppleWorld, but I think there were more of them than there were user groups. Dealers hate the user groups (they assume we are all pirates) and user groups hate the dealers (they charge extra for service they will not -- indeed cannot -- provide). So Apple brought in five "nice" dealers to talk to the user groups. These dealers had very good relations with their local user groups: some offered discounts; most offered facilities and services. Their local user groups of course patronized them and they were doing well. Curiously, nobody presented the flip side of the coin to the dealers.

Apple went to court last year and succeeded in restricting competition among dealers (to drive prices up, which presumably helps them at our expense). Apple has not done anything comparable for the users. The final irony at AppleWorld was that with all the razzle-dazzle, new hardware and new software to run on it (you didn't really expect the old programs to run unchanged, did you? Some do, some don't), there was no literature to take home. Apple had none: no data sheets, no pictures, no press releases for us to look at and carry off, and Apple forbade the other exhibitors to hand out any. Many of the third-party developers were unhappy about the prohibition. So was I. I had assumed there would be literature and pictures, so I decided not to take a camera. Next time I know better. Show and tell, but nothing to show for it. Form and not substance, something like introducing a "vapor" computer not scheduled to deliver until 'some time in the future'.

-NoVA

ELECTION REPORT

The NOVAPPLE Users Group will be holding its 'once a year' election of club officers. Elections will be held on the first Saturday meeting in October. If you are interested or have any questions, please call the club phone at 1-301-899-4005. Enjoy the Summer!

ELECTION REPORT

[COST FROM PAGE 1.]

Laser printers Postscript

SCSI interfaces Low cost networking

Now see how these items are the hot topic in virtually all of the computer magazines. Apple did not discover or invent many of these items, but took the concepts and threw in lots of money and effort to come out with computers that bucked traditional concepts. Then Apple had to sell these concepts to the public to show us how they make computing life more efficient. Once the concept was sold to the public and accepted, then step in the low cost producers who copy the technology without having to invest in the lengthy and expensive research and development process, as did the market innovator.

Yes you can save yourself lots of money buy purchasing the alternative. But where will that get you in one to two years? While the clone makers are busy trying to figure out how to make copies, guess who is working on the next generation of computers? Just because the product is now on the street does not mean that the market leader and innovator can take a breather. The R&D dollars continue to flow into development to insure that the market leader today is the market leader tomorrow.

If you have trouble relating to the R&D end of pricing a product, then lets look at service and support. Many people have complained about the poor support they receive from Apple dealers, about the compatibility problems with new equipment and features, and how expensive upgrades for existing products can be. Apple is not immune to marketing blunders. The Apple /// and Lisa are two of their most noted failures, mostly due to marketing and pricing errors. Even the big boys make mistakes (i.e. IBM PCjr). But Apple has taken a much better approach to supporting their users than you can find with most computer companies. They did make a trade in policy for Lisa owners to exchange for a Macintosh. Even after Lisa production was terminated, they continued to work on a migration package and MacWorks where the Lisa and XL could run existing Macintosh software. Although many Lisa and XL owners considered it a poor alternative to their expensive machines, Apple did at least address the problem.

Probably the most significant thing that Apple does for their users is to provide a means where existing Apple owners can upgrade their machines to the latest technology. Look at the upgrades available for the Apple //e to IIGS and the Mac 128k to a Macintosh Plus. No other manufacturer spends as much time and money as Apple does to provide an upgrade path for existing users. Most other manufacturers consider such a move would just steal sales from their new machines, so they leave the existing customer high and dry. To some people, the upgrade costs are too expensive in light of the amount they paid for their original machine. But they do have an option to upgrade, whereas many computer owners do not.

And then there is system software. Apple continues to update their system software and provide the enhancements at no charge to existing owners. Other computer companies charge for each additional operating system upgrade. Of course Apple does seem to use it's user base as Beta testers for their upgrades, but I guess that is the price we have to pay to get the current technology.

Other areas of Apple support for end users include their support of User Groups, the Apple Programmers & Developers Association, Applelink, and lots of technical documentation. These areas of support are expensive to maintain, but they do provide Apple users answers to their questions and help them make their machines useful tools. Very few computer manufacturers offer this level of support.

This is by no means an endorsement for Apple products. Some third party peripheral and software products are much better that those currently provided by Apple. But even with these products, it is very important to look at the level of service and support you can expect to receive from them. Users must look beyond price when selecting a product. The question you should ask yourself is not "How much does it cost" but "what value to I get for my money". Now go back to the items you have purchased in the last six months and apply these ideas. I bet there are several items that you would not have purchased if you had looked at value over price.

-NoVA

NEW APPLE II GS DEMO PROGRAM ADDED TO DISC LIBRARY!!

Notes-n-Files Apple II GS 512K memory req. File handler

DataPak Software inc.
14011 Ventura Boulevard #507
Sherman Oaks, California 91423
(818) 905 6419 list: 129.95

Database manager with fancy text editor built in. Uses color icons and mouse. Database is built on file cabinet, folder, index, stationary concept. Includes form letter, and mailing label capabilities. Appleworks database files can be imported. A unique feature is the direct link from the index, file cabinet, folder directly to the referenced document. (This would be a terrific added capability for appleworks).

Supports Imagewriter II and daisywheel (letter quality) printer.

Demo is read only. Demo files cannot be changed permanently.

-NoVA

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(On the Bulletin Board, send Newsletters articles to Chuck Edmiston.)

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Diskette Orders: . . . . . NOVAPPLE, 514 North Flordia Street, Arlington, VA. 22203
Newsletter Info & Address: . . . . NOVAPPLE, 6504 Bowie Drive, Springfield, VA., 22150

Heads in the Sand!

The Hacker Influence.
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It's a pity the Computer marketplace is dominated by hardware hackers and not legitimate users. Take the Mac. For the first two years of its existence, every Mac out there could run (almost) every piece of Mac software. A few packages insisted on more RAM, and when too many of them appeared, Apple stopped making the 128. Every program runs on every Mac.

Not so the IBM PC and its clones: a quick scan of the ads in BYTE magazine will show that nearly half of the software requires some special hardware configuration. Not just RAM, but certain particular cards Q this mouse, or that graphics card, or some other port Q have to be in the slots for the software to be usable. This does not count the software that specifies how much RAM and disk storage is required.

As a Mac user, I have a tremendous advantage over the IBMer. When I buy software, I don't have to worry about if it will run on my Mac Q it will. I only have to worry about whether it works as advertised, and whether it will do my job. Big enough worries indeed. As a programmer and developer of Mac software, I also have a tremendous advantage over the IBMer. I don't have to worry about compatibility with every Tom, Dick, and Harry hardware card. I don't have to worry about how many Macs there are with the particular configuration of hardware I tested the software on. The marketplace is not fragmented, and every Mac owner is a potential customer. I can spend my efforts on more and better goodies in the software, instead of fighting compatibility problems.

That is until this year. All of a sudden there are two different Macs. Some software runs on the 512 and not on the Plus; some the other way around. Even the magazines cannot tell us which is which.

Next year the Mac will no longer be the friendly machine it is today. Next year the naive user will be just as bewildered in a Macintosh store as he is today in an IBM store. Next year hundreds of new Macintosh programs will come out, but they won't run on your Mac (no matter which Mac you have, unless you have all five). Next year software developers will spend thousands of dollars just checking out their software on all possible Mac configurations, instead of making the software better (ever wonder why PC software is more expensive than Mac software that does more?). Next year Apple begins selling a version of the Mac with slots.

Slots are really needed by less than 1% of the users. The vocal minority. The rest of us are going to pay dearly for their priviledge. It's a pity that the computer marketplace is dominated by hardware hackers and not legitimate users.

-NoVA83

THE OPEN MACINTOSH

From John Wesner

AppleWorld, Los Angeles, California. March 2, 1987. Apple Computer, Inc. today introduced a high-performance, open architecture member of the Macintosh personal computer family, the Macintosh II. The new Macintosh offers users high speed, expansion and flexibility. Its modular design and open architecture permit a number of display options, including color displays, and the ability to incorporate add-in cards from Apple and third parties for additional functionality.

This top-of-the-line model is intended for advanced applications in business, desktop publishing, higher education and engineering environments.

"Because of its power and expandability, the Macintosh II strengthens Apple's position in markets in which we are already participating and extends the Macintosh personal computer family into new markets," said William V. Campbell, executive vice president U.S. Sales and Marketing.

At introduction, the Macintosh II operates most existing Macintosh applications up to four times faster than the Macintosh Plus. The Macintosh II offers upward compatibility with the majority of existing applications. Apple is working closely with third-party hardware and software developers to ensure that a wide range of software, peripherals and add-in cards are developed to take full advantage of the advanced features of the Macintosh II.

Macintosh II Specifications:
The Macintosh II is based on the 32-bit, Motorola 68020 microprocessor operating at 16 megahertz (MHz). It includes a floating point arithmetic chip, the 68881, that can perform mathematical operations up to 200 times faster than the 68020. These features let the Macintosh II process at a speed of 2 million instructions per second (2 MIPS). The Macintosh II also features transfer rates greater than 1 megabyte (MB) per second over its Small Computer Systems Interface (SCSI) interface.

The Macintosh II comes standard with 1 MB of random-access memory (RAM), expandable to 8 MB on the logic board. Additional RAM expansion of up to 1.5 gigabytes (GB) can be achieved with add-in boards.

The Macintosh II provides Macintosh Plus-compatible ports for a SCSI connection two RS-422 serial ports, an external SCSI disk drive interface and a sound port with four-voice stereo capability. Like all other Macintosh computers, the Macintosh II has the AppleTalk network built in.

In addition, the Macintosh II includes six slots that use the high-performance NuBus protocols. NuBus is a processor-independent, industry-standard bus that supports 8-, 16- or 32-bit data paths. It permits the fast transfer of large quantities of data between add-on cards and the logic board. NuBus features fair arbitration and geographical addressing. These two characteristics let the add-on cards "identify" themselves so, unlike other computer systems there is no need to set dip switches to configure a system. Because the NuBus lets add-in cards be placed in any slot, there is exceptional flexibility and ease associated with system configuration. The six slots let the Macintosh II operate a wide range of performance-driven, demanding applications and expand as users' needs expand.

The video interface is provided by the Macintosh II video card which fits in one of the slots. The card can drive either of the high-resolution monitors introduced today. In its standard configuration, the card can simultaneously generate 16 colors or shades of gray from a standard palette of more than 16 million colors. With the addition of the Macintosh II Video Card Expansion Kit, the card can generate up to 256 colors or shades of gray from the same palette.

Users may choose a 12-inch, high-resolution, monochrome monitor or a 13-inch, high-resolution red-green-blue (RGB) color monitor. Both display units feature 640 x 480 pixel resolution and utilize an analog input format. This format lets the monochrome monitor display millions of gray values and the color monitor display millions of colors or gray values.

The monochrome monitor, which is capable of displaying the full width and over half the length of a page, suits a need in productivity applications such as word processing, spreadsheets and business graphics.

The RGB monitor combines this full-width viewing area with the unique capability of displaying high-resolution text and graphics in both color and black-and-white. This provides Macintosh II users with a versatile, high-performance monitor capable of satisfying a broad spectrum of user needs from word processing to advanced graphics. A tilt-and-swivel monitor stand is available as an option for the high-resolution monitors. Users can configure the Macintosh II with multiple monitors by adding video cards in slots. Various monitors and video cards are also available from third parties.

[CONTINUED ON PAGE 9.]

[OPEN MAC FROM PAGE 8.]

The Macintosh II also includes the Apple Desktop Bus (ADB) standard interface for input peripherals. ADB is also used on the Macintosh SE as well as the Apple IIGS. The ADB lets users connect up to 16 input devices concurrently, including such peripherals as a keyboard, mouse or graphics tablet.

Users may also choose from two Apple keyboards: the Apple Keyboard includes a typewriter-style layout, a numeric keypad and cursor keys; and the Apple Extended Keyboard includes the numeric keypad, function keys and special-purpose keys for using alternative operating systems, such as MS-DOS or terminal emulation programs. Keyboards are packaged and sold separately.

The Macintosh II can internally accommodate, simultaneously, up to two 800 kilobyte (KB) floppy disk drives and one 20, 40, or 80 MB hard disk. Both the 40 and 80 MB hard disks feature a very fast access time of less than 30 milliseconds (ms). In addition, up to six storage devices can be daisy-chained through the external SCSI port. For those users who want to backup critical data from their hard disks, Apple also introduced an optional SCSI 40 MB tape backup unit, which provides file and image backup on preformatted, one-quarter-inch tape cartridges.

Apple also introduced the Apple EtherTalk Interface Card , which provides direct connectivity to Ethernet networks for the Macintosh II. Apple will support the AppleTalk network architecture and A/UX (Apple's UNIX product) networking software environment for use with the EtherTalk Card. Third party vendors are expected to provide software support allowing connectivity to other environments. The EtherTalk product will be available in the second half of 1987.

Alternative Operating Environments:
A/UX, a version of AT&T UNIX. Apple also announced today that it will offer a version of the UNIX operating system for the Macintosh II. This operating system is widely used in universities, in government and by technical professionals. An optional Motorola 68851 paged memory management unit (PMMU) is required for A/UX and will be available from Apple.

UniSoft Systems developed a significant portion of A/UX under contract with Apple. A/UX is a full implementation of the AT&T UNIX, System V, Release 2 Version 2 operating system and includes features from Berkeley's 4.2 BSD version. The features incorporated from 4.2 BSD provide easy portability of programs from 4.2 BSD to A/UX and advanced communications capabilities.

A Macintosh II running A/UX offers the traditional user interface of a UNIX operating system: a high-powered command line interpreter. Standard UNIX System V applications can be easily ported to A/UX. Additionally, a key enhancement from Apple lets A/UX developers have full access to the Macintosh toolbox. A/UX applications can therefore have the complete look and feel of Macintosh programs. New applications, properly designed, can operate in both environments.

A/UX also offers, through add-in cards, connections to Ethernet, AppleTalk and serial communications networks using standard UNIX communications and electronic mail systems. It can also act as a server or client on a Sun Microsystems Network File System (NFS) Ethernet network. The Apple EtherTalk Interface Card provides direct connectivity to Ethernet networks for the Macintosh II. A/UX is expected to ship this summer. Pricing and licensing will be announced in May.

MS-DOS:
Apple's goal is to provide data file interchange with other operating systems. To provide MS-DOS data file compatibility, Apple is introducing InterFile, file transfer software, a 5.25-inch MS-DOS floppy disk drive and drive controller cards. In addition, MS-DOS coprocessor cards for the Macintosh II and the Macintosh SE are available from third parties.

For example, users who purchase the 5.25-inch drive and controller card from Apple can read in a Lotus 1-2-3 data file so it can be used in a spreadsheet program, such as Microsoft Excel, on the Macintosh. Or, users who choose a coprocessor card from a third party can run dBase III or Lotus 1-2-3 in a window on the Macintosh screen.

Macintosh Technology:
Macintosh personal computer technology -- manifested by ease of use, graphics and unique functionality -- features a very high level of software consistency and tight integration across all applications, resulting in low requirements for user support and training.

These attributes have contributed to the widespread acceptance of the Macintosh personal computer family across all sizes of business and in higher education and has increased momentum by third-party developers over the past year.
Over one million Macintosh computers handle business, education and consumer applications.

-NoVAC

[APPLEWORKS FROM PAGE 1.]

The directions for using the program are quite clear and step by step directions are provided to install the patch to AppleWorks. First, you make a copy of the original Pathfinder disk and from the copy, run the program. The program then tells you that you can either remove the program disk and insert the AppleWorks program disk if you are using 5 1/4 inch disks or if you are operating from 3 1/2 inch disks or hard disks you specify the pathname for the AppleWorks program. The program then proceeds to modify your copy of AppleWorks that has been previously, quite possibly, been modified to include other enhancements, such as macro programs or desktop expansion programs. Pathfinder is compatible with all such programs.

After modifying AppleWorks you can now run the program and when you go to the "other activities" menu, you will see the Pathfinder as an option where formatting a disk was before.

When you select the pathfinder option, the following choices appear:

1. Add a subdirectory
2. Drop a subdirectory
3. Rename files
4. Lock files
5. Unlock files

If you specify, "add subdirectory", you are presented with a list of all the subdirectories that are present in the current directory. For example, if the current directory is /DATA/APLWORKS, you would be shown all of the subdirectories on the APLWORKS subdirectory. If there were subdirectories in the APLWORKS subdirectory you could pick a new one by highlighting it and pressing return. If instead of selecting "Add a subdirectory" you selected "Drop a subdirectory" you would be brought back to the /DATA main directory because when this option is selected it drops the last subdirectory from the end of the pathname. You could then select a new subdirectory by specifying "add a subdirectory" and you would be presented with a list of subdirectories in the /DATA directory to choose from. If you have a macro program such as SuperMacroWroks, there are some sample macros included on the disk to increase PathFinder's ease-of-use. PathFinder can be obtained for the low price of $20.00 from: JBM Software, P.O. Box 20920, El Cajon, CA 92021.

The other program that I heard about was one that increases the options you can have with printers and is called ExtraWorks Printer Utility by Eugene Whitehouse. Like the PathFinder program, the documentation for it is in a word processor file on the disk.

AppleWorks only allows you to have only one custom printer so if you want to customize your Imagewriter so you can use other features, there is no way to do this except by using the custom printer option. EPU allows you to replace some of the built-in printer options with some of your own. The following printers are supported: Imagewriter II and Epson models FX, RX and MX/graftrax+ printers. EPU supports AppleWorks versions 1.2, 1.3 and 2.0 and works with expanders and other add-on programs.

To get started you run the EPU program and specify the location of the AppleWorks program. It then asks what printer would you would like to alter. It, of course, cautions you to use a copy of your AppleWorks program not the original. After you select the printer you want to modify, such as the Imagewriter II, it then presents you with a list of standard printer options you can change: superscript, subscript, underline, or boldface. They can be replaced with these options: half-height superscripts, half-height subscripts, mousetext, and with the color ribbon, red, yellow, cyan, green, orange or purple. You can also specify that you want zero to be replaced by the slashed zero. After you have specified all the changes, you are asked to verify your selections and when you verify them, it modifies the disk. You can now run AppleWorks and when you select one of the options you changed, the document will appear just as usual on the screen, but will be printed out using the new commands as redefined.

If you had selected one of the Epson printers instead of the Imagewriter II, you would have been asked to select seven alternatives. You could choose to replace boldface with italics, add emphasized double-strike in place of either superscripts, subscripts, or underline, or you can choose a combination of both changes.

There are some limitations of the program that the documentation points out. It has to do with the SEG.PR file on your AppleWorks disk. Some of the commands you add take up more space than the original, so that space has to be borrowed from other parts of the file. This means that if you modified the Imagewriter commands, you can no longer print to a Qume Sprint printer. Likewise, if you modified the Epson FX, you can't use the MX and so on.

There are a number of extras on the EPU disk as well, what the author calls "Freebies". The first is a program called SEG.PR.SELECT which is a mini-selector that lets AppleWorks users running from a 3.5 inch disk or harddisk to have more than one set of 3 printers to use. It does this by have 2 sets of the SEG.PR file on the disk and by running this program before you runAppleWorks it selects one or the other SEG.PR file for the AppleWorks program to use for that session. The second freebie is a word processor file that

[CONTINUED ON PAGE 13.]

SCHEDULE OF UPCOMING EVENTS

REGULAR GENERAL MEMBERSHIP MEETINGS

1st Saturday -- Room 110 or 120, Bisdorf Bldg, Alex Campus NoVA CC - 10:00 AM
3rd Wednesday -- Room No.1, FAIRLINGTON COMMUNITY CENTER
3300 S. Stafford Street in Arlington - 7:30 PM

Saturday	Aug	1	10:00 AM	NVCC	Word Processor's
Wednesday	Aug	19	7:30 PM	FCC	Interesting Applications of Apple
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Saturday	Sept	5	10:00 AM	NVCC	Labor Day Weekend! - Call Club Phone (301-899-4005) and Check if meeting will be held!
Wednesday	Sept	16	7:30 PM	FCC	Assembly Language

Saturday	Oct	3	10:00 AM	NVCC	Communications Basic
Wednesday	Oct	21	7:30	FCC	Apple GAMES!

Saturday	Nov	7	10:00 AM	NVCC	Appleworks
Wednesday	Nov	18	7:30 PM	FCC	Bulletin Boards BBS'

ELECTION

NORTHERN VIRGINA APPLE USERS GROUP

MEETING TIME AND PLACE - The general membership meetings are held the first Saturday of each month in room 110 or 120 of the Bisdorf building on the Northern Virginia Community College campus in Alexandria, Virginia at 10:00 AM and on the third Wednesday of each month at the Fairlington Community Center, Room #1, 3300 South Stafford Street in Arlington, (corner 34th & Stafford) at 7:30 pm. We're primarily an Apple II group,(some MACs) but everyone's welcome.

TELEPHONE ANSWERING SERVICE - NOVAPPLE maintains a telephone answering service that has information about any changes in meeting locations or times and general announcements about programs scheduled at the next meeting. Use this number also if you would like a membership application sent to you. The club phone number is (301) 899-4005.

SPECIAL INTEREST GROUPS - Groups of members that share an interest in a special topic such as games, graphics, business, education, languages, etc. are formed from time to time to exchange information and educate members of the group on their topic of interest.

NEWSLETTER - The NOVAPPLE newsletter is published monthly ten times a year and is mailed to club members prior to the Saturday meetings. Members are encouraged to submit articles for inclusion in the newsletter on any topic that might be of interest to the membership. The newsletter is partially supported by advertising. Rate information is available by contacting the Newsletter editor. Non-commercial advertisement by NOVAPPLE members is available for free.

LIBRARY - NOVAPPLE maintains both a disk and paper library. The disk library is a collection of public domain software that has been contributed by individual APPLE users. These programs have been collected and arranged by subject on each disk and are made available to members at regular monthly meetings. There is a "new members disk" available for purchase which is a collection of some of the most useful programs for people new to the Apple][series of computer. The paper library is kept in the office of Ernie Philipp located in the Bisdorf Bldg and books and periodicals are available for checkout at most Saturday meetings.

BULLETIN BOARD - NOVAPPLE is on line with its own electronic Bulletin Board System. The NOVAPPLE BBS can be accessed by calling (703) 352-5842 and connection via a 300 or 1200 baud modem. Current areas of interest are general subjects, Apple II software and hardware, games, for sale/wanted, Macintosh and ability to play on-line Dungeons and Dragons.

TUTORIALS - Periodically, tutorials are offered to club members providing specific instruction on a variety of subjects of interest. Announcements about these are put in the newsletter.

NOVAPPLE HOT LINES - The HOT LINES are a list of volunteers who have agreed to answer question by phone in their designated areas of interest and/or expertise. A list of HOT LINE volunteers along with their phone numbers is found in the newsletter and on the BBS.

[CONTINUED ON PAGE 12.]

NEW APPLE VIDEOS!

By Dave Harvey

No, Apple hasn't suddenly gone into the rock video business. The videos that we got recently from Apple are all computer related. Not all titles are descriptive enough to figure out what the tapes contain, so I thought that I would go over what's on the tapes and let you decide if you want to check them out from NOVAPPLE'S lending library. They're all available there (in VHS) and can be checked out at any Saturday meeting.

The first one that we received documented the AppleWorld 1987. If you remember this was the event where the Macintosh SE and Macintosh II was introduced for the first time. This tape is 44 minutes long and contains the special show that was put on in the Universal Studios in Hollywood. In this tape you see and hear not only the new computers but short speeches from Steve Wozniak, Jean Louis Gassee, John Sculley and other corporate officials from Apple Computer.

The second tape also has a brief clip from Appleworld '87 where we see and hear a short talk by the WOZ at Appleworld. After that there is a review of what's happening in the world of education-- a very good presentation on how disabled people are using Apples. It shows some novel ways in which Apples have played an important part in helping disabled people better cope with everyday situations. There's then a brief talk by Alan Kay about the Vibrarium project in LA.

This is a special education project that's been dear to Alan Kay's heart for many years. The next part of this tape is titled "Users of Apple Technology". For the most part in concerns what people are doing in the music world. Like, for instance, Herbie Hancock using a midi-interface to compose and play most of his music. Herbie started out with the Apple II many years ago but now uses the Mac to do it all. His setup allows Herbie to even print out all the players' scores. The last section, of this tape, was on Apple history and the most fascinating. Shows the automated factories that Apple uses in Signapore and Fremont, CA. Also a brief view of them setting up the Cray Computer in Cupertino. This tape is about 42 minutes long. Very well done

The next six tapes are all from AppleWorld conference on March 2 and 3 and at the User Group "University" on March 4, 1987 in Los Angeles, California.

The first tape features Apple Fellow Alan Kay where he shares his insights on the "Emerging Trends of the Industry," providing a compelling future glance to the User Group audience. This tape is about 1 1/2 hours long.

The second tape covers the dinner with WOZ: Woz's humor, Apple's trivia and the User Group's creativity meet head-on in a wacky game show spoof. There's "Re-inventing the User Group": a thought-provoking presentation by Patricia Aburdene, co-author of the best selling book "Re-inventing the Corporation." There's a product family overview where Jean Louis Gassee, Apple's V.P. of Product Management conducts a Q and A session on the Apple product line. This tape is about 1 1/2 hours long.

The third tape in the series covers Apple's Advanced Development Forum, a discussion led by Larry Tessler and his Advanced Development Team (Apple's R & D futurists). There's a short presentation on AppleLink, Apple's electronic information service, by Trev Griffiths, Manager, AppleLink Engineering. Customer relations is covered by Toni Tonacci, manager of Apple's Customer Relations Department, in an insightful look into that world. This tape is about 2 hours long.

Number four tape covers the Apple "University" session on newsletter Face-lifts. It has some powerful newsletter design tips from John McWade of Page Lab, Inc., a professional Desktop Publishing design and production facility, Karen Howe of Aldus Corporation, and Fred Showker, graphics designer and President of the Shenandoah Macintosh Users Group. This one lasts about 2 hours.

Tape five covers Tom Warrick's talk where he gives details on the necessary steps for user groups to become tax exempt. Jonathan Rotenberg, founder of the Boston Computer Society, provides insights on getting and keeping active volunteers for user groups. We also hear from Apple's Sterling Speirn on the Corporate Grants program that Apple conducts. This one lasts a little less than 2 hours.

The last tape in the series concerns Apple whole user group program called "The User Group Connection". We hear from Ellen Leanse, the program manager, Cathy Hoolihan, Communications Specialist and Bruce Mowery, Consumer Marketing Manager. They all give a good look at the present program and what we can expect for the future. AppleWorld is closed by John Sculley, Apple's President and CEO, where he assesses User Group impact on Apple and answers numerous questions from the user group audience. This one lasts alittle less than 2 hours.

-NoVA

[NOVA FROM PAGE 11.]

GROUP PURCHASES - NOVAPPLE'S membership is often surveyed for group purchase opportunities. When sufficient members show interest in purchasing an item, a group purchase can usually be arranged often at significant savings to the group.

The NORTHERN VIRGINA APPLE USERS GROUP is an all volunteer organization. It only functions well when members volunteer their time and talent to the group. Volunteers are needed to help put on demonstrations, run tutorials, copy disks for the public domain library and to write articles for the newsletter. Your interest in joining NOVAPPLE has already been demonstrated, your help would be appreciated.

-NoVA

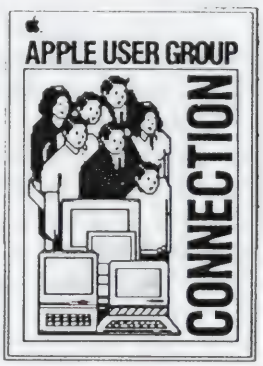
News from the Apple User Group Connection

By Dave Harvey

In June, Novapple received the May mailing from the Apple User Group Connection. A lot of interesting things are included in this mailing. I will briefly go over what we got and let you decide if you would like to maybe take a look at some of the material. It's available in our lending library.

Mastering Macintosh Guide- shortcuts and alternative ways to use your Macintosh. There are lots of hints and other information contained here. Maybe some you have already heard about, but I'm sure that there are some items that will be new to you.

Are you involved in writing software for the Apple? If so, you might be interested in the Human Interface Update. This is an inside look at interface issues and design guidelines for developing Apple Software. Covered in this package is the following topics:



0 Introduction
1 Color
2 Sound
3 User Testing
4 Hierarchical Menus
5 Pop-up Menus
6 Scrolling Menu Indicator
7 Function Keys
8 Stationery
10 Dialog & Alert Update

The May-June issue of Quick Connect was included in this mailing. Contents of this issue is covered elsewhere in this issue.

There is a new set of Apple II technical notes, dated April 1987. This release includes #0 which accompanies each release of Technical Notes as well as Apple //c #6, Apple IIgs #10, #11, #12, #13 and a revision of Apple IIGS #7. The titles of the notes are:

#0: About Apple // Technical Notes
#6: Buffering Blues
#7: Halt Mechanism in IIGS SANE
#10: InvalRgn () Twist
#11: Ensoniq DOC Swap-Mode Anomaly
#12: Toolset Interdependencies
#13: ROM 1.0 Modem Firmware Bug

There was included a pamphlet that gives news about the Macintosh Programming Seminars to be held in various parts of the country. One of them will be held in the Washington area and should be of interest to all Macintosh users who are involved in using Macs in their business.

The Apple Programmer's and Developer's Association (APDA) was set up by Apple Computer to do the job of collecting all in one place documentation and software needed by programmers and developers of Software and hardware for Apple computers and be responsible for distribution of this material.

Included in this mailing is an update of the ADPA catalog that gives the latest info on what is currently available from APDA.

The last item in this mailing from User Group Connection is the Apple Collection Catalog- A brand new merchandise catalog that has everything under the sun that would be of interest of Apple Computer enthusiasts who want the world to know that they are an Apple Computer supporter. Take your pick of about 150 items. There's beach towels, coffee mugs, t-shirts, luggage, jewelry, furniture; you name it, it's probably here. There were 20 copies of this catalog given to us, so there's not enough of them to pass out to everyone, but you can take a look at a copy at our one of our meetings. The most expensive item I noticed was a computer desk for your Apple-- $269. The catalog has, by the way, the books that were given to Novapple recently- SO FAR and WHALE SONG (they're in our lending library). If you have looked at these books and thought you might want your own copy, here's the opportunity to get them at a very reasonable price. For example, the SO FAR book sells for only $49.00, an excellent value considering the high quality color pictures and detailed history of Apple Computer's first ten years. Also for sale is the front cover of the book as an 18"X24" poster for $10.00. There are all together thirty five pages in the catalog.

-NoVA

[APPLEWORKS FROM PAGE 10.]

contains a description of a technique to get AppleWorks to print two line headers on each page of a document. The third freebie can only be used if you have an Applied Engineering Transwarp Card installed in your computer. This program allows you to change all of the Applesoft BASIC commands to some other word that is the same number of characters or less than the original command.

I have used this program and found it to work as promised. In my particular case, for example, I have opted for the ability to print Mousetext characters and use red and cyan colors. I am also using the SBG.PR.SELECT program to allow me to have one set of draft quality printer specifications and the other Near Letter Quality. I have not tried out the double header feature or the AppleSoft command changer. The ExtraWorks Printer Utility can be purchased for $20.00 from Electronic Management Workshop, 25 Kensington Avenue, Suite 503, Jersey City, NJ 07304 (201) 434-5110 (eves). Support for this program is available by writing the author or by leaving him a message on CompuServe.

-NoVA

QUICK CONNECT

The House of Cray

On the outside, it's an unpretentious office building not unlike its neighbors on a deceptively quiet street in the heart of Apple country. On the inside, it's another world. You immediately get the eerie feeling you've just entered either a pyramid, another time zone, or a labyrinth in a dungeons and dragons adventure game. Arched tiled passageways lighted by blue and red torchlike lamps lead to an elevated, glass-enclosed, hermetically sealed, climate-controlled chamber the nerve center for which this building was specially designed. This is the House of Cray, home to one of the largest, fastest, most expensive supercomputers ever built, Apple's Cray X-MP/48.

Since its construction a year ago, the House of Cray has inspired its share of awe, curiosity, and rumors. Architecturally, it's astonishing. But it's what you don't see that gives the place a sense of unreality and gets the adrenalin flowing. And what you don't see is a 700-gallon water cooling tower, a 480-volt megatransformer, two 20-ton air-conditioners, super-powered compressors and generators in soundproof rooms, high-pressure freon plumbing, an impregnable security net worthy of a fortress, and, of course, the invisible data coursing soundlessly through the circuits of the Cray itself. To 47 hand-picked Apple engineers and support people, this is their home, their office, and their work, and there's nothing the least bit spooky about it.

We met with Rich Herndon, manager of engineering computer operations, to unravel some of the mysteries about what goes on there, about the people who work there 24 hours a day 7 days a week, and to find out more about this $15.5 millionpurple-paneled Goliath. Here's what he had to say.

Q: What can you tell us about the Cray? What's so special about it?
A: Power and speed, mainly. The Cray has a clocktime of 9 1/2 nanoseconds and runs at 800 megaflops, but that doesn't mean much to a human being. And comparisons are difficult. You can think of it this way: it would take 100,000 Macintosh computers to perform a typical computation in the same time as on a Cray, not counting the time it would take for all those Macintosh computers to communicate with each other. The Cray can handle 400 million instructions per second (MIPS). By comparison, the Macintosh II (far and away the most powerful Macintosh) can handle 1 MIPS.

To give you an actual example, Steve Perlman, an Apple engineer, recently had a big program to run. Using dedicated time on one of our VAX computers, his program would have been completed in two weeks. Unfortunately, it would also have prevented anyone else from using the computer during that time. Lowering his priority meant that it would then take six months to run his program. Instead, Perlman's program was ported to the Cray, twiddled and tinkered with to get it up and running, and then let loose on all four Cray CPUs. The program finished 2 1/2 hours later which meant that the job got done 1700 times faster on the Cray than on the VAX.

Q: Why did Apple buy a Cray?
A: First and foremost, it was a way for Apple to reduce the time it takes to develop new products and get them out in the marketplace. Because of the Cray's speed and simulation capabilities, many ideas can be tried and tested exhaustively without spending lots of time building prototypes. It was also a way for Apple to attract the best people: provide them with the best tools, and you'll produce the best products.

Q: Isn't it unusual for a private company to buy a supercomputer?
A: Yes. In fact, Apple is one of the few private companies and certainly the only personal computer manufacturer to own one. Unlike the large corporations who own Crays, Apple is in the enviable position of providing its engineers with immediate access to the machine no waiting in a queue while 700 other jobs are processed.

Q: Who uses the Cray?
A: In theory, the computer is available to any Apple employee who could justify a need for using it. In practice, that means about 300 engineers from Apple's research and product development groups, but currently, no where near that number of people use the machine.

Q: How will Apple employees based outside of Cupertino access the Cray like Alan Kay in Los Angeles ?
A: One of the conditions when we bought the machine was that no phones would be connected to it, to prevent unauthorized access to the system. But that also prevented us from using telecommunications to make the resource available to those who needed it. What we've done, essentially, is employed Apple technology to solve the problem. We've designed a state-of-the-art networking system that links Macintosh computers via AppleTalk to the Ethernet, which is in turn connected to the front-end mainframes the machines that talk to the Cray. We're working on a direct Macintosh II-Ethernet hookup. None of this has ever been done before.

Q: Who works here and what do they do?
A: We have a staff of 47 that includes 24 hardware and software engineers, 18 support people, and 5 administrative personnel. We have shifts working round the clock and there's always at least 4 operators here at any given time, as well as several guards. The support group includes 3 people from Cray who we could not do without. They're the

[CONTINUED ON PAGE 15.]

[CRAY FROM PAGE 14.]

ones who help us keep the machine running and monitor all the equipment required in a Cray environment. Our support group, in fact, is probably the leanest staff in the country supporting a supercomputer.

Many, if not most, of our people had never seen a Cray before a year ago, let alone worked on one. So right from the start, Apple hired several engineers with Cray experience who brought the rest of us "up to speed." Our Cray Evangelist, for example, came from NASA and provided the needed training. The original Apple employees came from the research group and were selected because of their work on a particular project the reason the Cray was purchased and installed in record-breaking time. Today, the Cray crew has proven their capability. All of them are dedicated professionals.

Q: How do these people feel about working on a multimillion dollar computer?
A: Lucky, but not in the elitist sense of the word. They feel fortunate to have the opportunity to work on one of only about 150 Crays ever built. There's also a great deal of pride in the work they do, which is an attitude you'll find in any Apple office. They're breaking new ground with this machine, doing things remarkable things that have never been done before. But I don't think you can say any of them stand in awe of this machine. After working with that much power every day for a year, even without the benefit of windows or pull-down menus, they would probably agree: the Cray makes an excellent peripheral to the Macintosh.

Q.C.

Apple System Software: More Accessible Than Ever!

Does your User Group distribute Apple system software, either on disk or electronically? Is Apple system software included on your group's public domain disks? If so, the following paragraphs will be of interest to you.

Apple's system software is a key part of our company's "intellectual property" the proprietary software that contributes to the unique qualities of the Apple II and Macintosh families. You probably know Apple's system software best by its specific names: ProDOS and DOS for Apple II computers, and the System and Finder on Macintosh systems. Because Apple system software is part of what makes our computers unique, Apple has to be sure that we can stake our claim on it if the system software is imitated or misused. For that reason, as many User Group members know, the software cannot legally be distributed without authorization, usually in the form of a license agreement.

Traditionally, Apple system software was distributed in two ways: by software developers (on the disks that contained their own applications software, or programs) and by Apple dealers. Both of these entities license the right to distribute this software from Apple. Recently, Apple has extended the distribution of system software by posting updates to certain electronic networks, but only in compliance with electronic distribution licenses. The addition of electronic distribution was Apple's response to interest from Apple owners who use electronic networks as a source of ongoing product information and support.

But in the past year, another party indicated an interest in distributing system software: User Groups. Apple agreed with the User Group community that a larger number of endusers could be reached with system updates if User Groups could distribute system software. So we began to develop alicense agreement that allowed interested User Groups to extend this service to their members.

Thus, the User Group System Software License Agreement wassent to all Apple User Groups last month. The agreement allows User Groups to license system software from Apple at an annual rate of $75.00 per product family (Apple II or Macintosh) per year though lower rates have been approved for some of our smaller User Groups. This processing fee helps defray Apple's cost in providing the license, disk labels, and originals of software updates to the User Groups, and is designed to add the minimum possible financial burden to the groups who participate.

It's important to us at the User Group Connection that each User Group member understand the evolution of this license and the rationale behind it. The agreement is designed to extend a service to the User Group community and to extend that service at the most equitable price possible.

Although the agreement has been sent to the Apple User Group community, it is by no means cast in cement. Input from User Groups has already been incorporated into an addendum to the agreement, adding increased benefits to users of DOS 3.3. We ask your participation in providing us with the feedback we need to make the agreement work for your group.

Let your officers know if you have any questions, or contact the User Group Connection at the address shown on the back of this issue.

Q.C.

[Bulletin Board Items]

This Month in Apple's History...
1976-Steve Jobs and Steve Wozniak form the "Apple Computer Company" on April Fool's Day.
1977-The new Apple II personal computer is unveiled at the First West Coast Computer Faire.
1983-Mike Markkula announces John Sculley as Apple's new president and CEO.
1984-50,000 Macintoshes are sold in the first 100 days of production.
1985-The Apple IIc celebrates its first birthday with over 400,000 units sold.
AppleTalk and the LaserWriter are announced.

Q.C.

AppleWorld: Looking Back and Looking Ahead.

Apple Computer does things in a big way, and AppleWorld, held in Los Angeles on March 2 and 3, was no exception. Attended by nearly 3,000 representatives from various customer groups, the conference was Apple's version of the annual family reunion, bringing its "relatives" together for a few days of catching up, seeing what's new, and finding out where each other was headed. Not surprisingly, Apple's User Groups played an important role in the two-day event, as well as in the User Group "University" that followed it.

Members from almost 150 User Groups spanning a wide geographic, size, and product range came to AppleWorld to address three relationships: User Groups and Apple itself, User Groups and other User Groups, and User Groups and Apple dealers.

User Groups and Apple:
The relationship between User Groups and Apple was explored in a variety of contexts: the User Group Connection program and its ongoing direction, product and technology discussion panels, and addresses by Apple executives. Significantly, these discussions reinforced the two-way nature of User Group communications Apple learned as much from the conversations as the User Group participants. The audience provided input on corporate and product direction, constructive criticism of the User Group program itself, and future outlooks for the company as a whole.

User Groups and Other User Groups:
Nearly all groups agreed that a system is needed to facilitate the exchange of information between groups especially newsletters, public domain software, and technical insights. Most participants agreed that this exchange should be maintained by an independent entity existing primarily to facilitate User Group communications. Apple agreed to play a supporting role in helping such an entity reach out to the User Group community, and is currently in contact with several organizations who are interested in developing such a program.

User Groups and Apple Dealers:
The Apple dealer community, represented by five dealer principals, addressed the subject of cooperation with User Groups. These dealers were selected by Apple based on their track record of successful User Group interaction. The exchange between the two groups was lively and productive, and highlighted mutually beneficial ways in which dealers and User Groups can work together.

The participating dealers told the User Groups some interesting things: that they closely followed the inside tips within some User Group newsletters, that they saw advantages in providing new users with first-year User Group memberships, and that they realized the value of User Group support during all stages of a customer's interest in a personal computer. Some expressed willingness to provide User Group members with preferred arrangements on certain purchases, and across the board, all agreed that User Groups and dealers have much to gain from each other. (In next month's Quick Connect, look for more information on the dealer-User Group-customer "triangle.")

User Group University:
In addition to the planned AppleWorld itinerary, many User Group representa- tives stayed in Los Angeles for a third day to participate in the User Group University a one-day exploration of member services and opportunities available from Apple. Among the areas reviewed were:

Newsletter layout. John McWade, Desktop Publisher par excellence, gave and tips for successful newsletter design, and even gave a User Group newsletter or two a facelift.

Volunteerism. Jonathan Rotenberg, President of the 23,000-strong Boston Computer Society, shared his experience in motivating a 500-person corps of volunteers.

Apple corporate grants. Apple explained how and why it gives equipment needy nonprofit organizations.

Apple customer relations. Apple's phone support system and what it mean Apple owners was discussed.

Apple government sales. This discussion centered on Apple's new entry in the government market and how User Group members can get involved.

AppleLink. Apple explained how User Group leaders can take advantage of Apple's in-house communications network.

User Groups and taxes. How User Group leaders can apply and qualify for group's tax-exempt status was explored.

Both AppleWorld and the User Group University received exemplary ratings from all participants, and were viewed as extremely successful by Apple. The positive results of the three-day meeting are now rippling out to members everywhere through User Group newsletters and publications by the press who joined us for these events.

If you were not able to personally participate in AppleWorld or the University, you can still benefit from these sessions. Most of the programs were videotaped, and copies of these tapes are currently in production. They will be made available to User Group officers on a cost basis by the end of April. And to those of you who did attend, Apple extends a warm "Thanks for Coming!"

Q.C.

Did You Know?

In April of '76 the first Apple, the Apple 1 was introduced at the Home Brew Computer Club.

Q.C.

A Macintosh Pioneer: Ron Rice

Mention the name Ron Rice, and people start using superlatives people who know him, that is, like the members of the Clemson Apple Users Group and Software Exchange (CAUSE) in his hometown of Anderson, South Carolina. They were the ones, along with special friends like Apple's Paul Hudspeth, Dan Welch, and Mike Bonham, who helped introduce him to the Macintosh. A COBOL programmer on an IBM PC, Ron was quick to see the advantages of the Macintosh, but, for Ron, the Macintosh had one key disadvantage it required a mouse to operate. Why was the mouse a disadvantage? Because Ron is a quadraplegic paralyzed from the neck down.

Ron, however, was used to challenges, and so were the friends who helped him. This is their story, as well as his.

Two years ago, Ron met the Macintosh for the first time, thanks to his good friend Paul Hudspeth, a Systems Engineer based in Apple's Pittsburgh office. Ron, a self-taught programmer knowledgeable in several computer languages, liked what he saw. Unfortunately, he just couldn't use it. His method of programming with a pencil between his teeth to type source code and keyboard commands just couldn't be replaced by clicking and dragging a mouse. When Paul next went to work on his Macintosh, he didn't stop thinking about Ron.

Then a breakthrough occurred last October. Paul laid his hands on a device practically made for Ron a Personics Headmaster. Used for special education presentations by the Apple Pittsburgh office, the Headmaster moves the cursor on the screen using head movements and clicks the mouse using a puff straw. The keyboard is implemented by a desk accessory which takes very little space on the screen. Paul immediately made arrangements for Ron to test the device arrangements which ultimately opened the door to the Macintosh for Ron. With the help of Apple Computer, local community groups, the Clemson Apple Users Group, a local chapter of Beta Sigma Phi sorority, and individual Apple employees like Paul Hudspeth, Ron got his own system a Macintosh Plus, HD20SC, an ImageWriter, and the Personics Headmaster.

Since then, Ron has purchased a veritable library of software, including Light speed Pascal and Microsoft Works, and made a lot of new friends in the Clemson Apple User's Group. Today, Ron is busy learning Pascal on the Macintosh, in addition to his programming work for Owens Corning Fiberglass and other local industries. When asked how he likes the Macintosh, it's his turn to use superlatives. As he put it, "It's got the best operating system and graphics capabilities of any computer I've used."

When Ron isn't programming, he's using the Macintosh for organizing his files, composing music, and writing his correspondence. And it's all possible thanks to Ron's insatiable desire to learn new things, and the help of so many friends and organizations. Perhaps Paul summed it up best, "It's good to know we're still changing the world, one person at a time."

User Group members interested in the Personics Headmaster can contact Personics Corporation at (617) 897-1575.

Q.C.

ALL ABOARD THE DESKTOP EXPRESS!

If you've ever been siderailed in a game of "telephone tag" tracking somebody down, you'll be glad to hear about an alternative way to communicate with Desktop Express, a new concept in telecommunication packages.

Produced jointly by three companies Apple Computer, Dow Jones, and MCI Communications this new three-in-one desktop communications package can shorten the distance between you and all those sombodies you can't reach by phone. First, Desktop Express puts you on-line with MCI Mail, the public electronic mail network of MCI. With your one-year-free MCI mailbox, you can send your messages electronically even to those with MS-DOS machines and save your time, and your ear.

Secondly, the product features graphics transmission with power plus. Desktop Express allows Macintosh users to exchange, view, and print graphics even if they don't share the same applications. That means you can send a MacPaint file, for example, to a Macintosh user who can display and print the file without using a MacPaint program. What's more, you can send a laser-printed hard copy of any Desktop Express document overnight by taking advantage of MCI's Macintosh/LaserWriter systems throughout the U.S. and using courier or postal services.

If that isn't enough and you're still counting, the product's third feature is a password to the Dow Jones News/Retrieval service. Getting the latest business and financial news couldn't be easier, since the program uses the Macintosh pull-down menu interface. That gives you the option of using the keyboard commands you learned or selecting from the menu.

Desktop Express works with the Macintosh 512K and 512K Enhanced, Macintosh Plus, and the new Macintosh SE and Macintosh II. It even supports color graphics on the Macintosh II. You'll need a modem and either two 400K drives, one 800K drive, or a hard disk.

The package carries a suggested retail price of $149. If you need more information, make tracks to your nearest Apple dealer!

Q.C.

APPLE II SOFTWARE LIST!

With all the Apple II software on the market, it's hard to keep up with what's available, such as the latest versions of your favorite Apple programs. To help keep you up to date, here's a list of all Apple II software distributed by Apple as of February, 1987.

Application	Current Version	Date Released
Access II		
Apple Access II	1.2	Sep 23 86
Apple Presents Access II	1.1	Apr 30 85
Apple IIc		
The Apple IIc at Play	1.1	Nov 29 84
Inside Story	1.1	Nov 30 84
Apple IIe		
Introduction to the Apple IIe	2.0	Jun 20 86
Inside Story	2.0	Jun 12 86
Apple IIgs System Disk	1.1	Dec 2 86
ProDOS 16	1.1	Dec 3 86
ProDOS 8	1.3	Dec 3 86
Apple Tour of the Apple IIgs	1.0	Sep 6 86
Apple Education Classics	1.0	Mar 21 84
Apple LOGO II		
Apple LOGO II (128K)	1.1	Nov 12 84
Apple Presents Apple LOGO II	1.0	Jan 23 84
Apple Presents Apple LOGO II	1.0	Jan 23 84
AppleSoft BASIC		
ProDOS AppleSoft Sampler	1.2	Mar 5 85
ProDOS BASIC Prog. Examples	1.1	Oct 26 84
ProDOS AppleSoft CI (BASIC.SYSTEM)	1.1	Jun 18 84
Getting Down to BASIC IIe	1.0	Jun 12 86
ProDOS AppleSoft Prog. Asst.(APA)	1.4	Jun 28 84
AppleWorks		
AppleWorks Startup/Program	2.0	Jun 19 86
AppleWorks Sample Files	2.0	Jun 19 86
AppleWorks - 3.5"	1.3	Jun 19 86
Apple Presents AppleWorks	2.0	Jun 19 86
Apple Writer		
Apple Writer II	2.1	Dec 12 84
Apple Presents (40 COL)	1.0	May 22 84
Apple Presents (80 COL)	1.0	May 1 84
Backup II	1.1.1	Oct 24 85
Console Driver / User Input		
User Input Routine ASSEMBLER	1.0	Jan 16 86
User Input Routine BASIC	1.0	Jan 14 86
User Input Routine Pascal	1.0	Jan 6 86
ConsoleStuff Pascal Unit	1.0	Jan 14 86
Dow Jones News & Quotes Reporter	2.0.1	Jun 20 84
ForTran II	Rev.B	Feb 21 85
Instant Pascal		
Instant Pascal (Program)	1.0	Aug 19 85
Instant Pascal (Samples)	1.0	Aug 19 85
Apple Presents (Mouse)	1.0	Aug 22 85
Apple Presents (Keyboard)	1.0	Aug 22 85
MousePaint	1.2	Apr 10 85
MouseText / MouseGraphics		
MouseGraphics ToolKit - AII Pascal1.2	1.0.0B6	Aug 21 85
MouseText ToolKit	2.1	Jan 15 86
Pascal MouseText ToolKit	2.1	Jan 18 86
Pascal Mouse Attach Driver	1.0	Jul 3 84
File Card Menu Support Library Unit	1.0	Jan 15 86
Pascal II		
Development System - APPLE0:	1.3	Sep 3 85
Development System - APPLE1:	1.3	Sep 3 85
Development System - APPLE2:	1.3	Sep 3 85
Development System - APPLE3:	1.3	Sep 3 85
Development System - 3.5"	1.3	Sep 3 85
Pascal Device Support Tools	1.1	Aug 14 84
Pascal Profile Manager	1.0.2	Apr 9 84
Pascal Profile Manager	1.0.2	Apr 9 84
Pascal Attach Tools	1.3	Sep 3 85
Pascal ProDOS Access Unit	1.2	Oct 7 85
Programmer's ToolKit / Assembler Tools		
DOS Programmer's ToolKit	Rev.B	Oct 20 83
DOS Programmer's ToolKit	Rev.B	Oct 20 83
ProDOS Assembler Tools	1.1	Jun 6 85
ProDOS		
ProDOS Kernel (PRODOS)	1.1.1	Sep 18 84
ProDOS Exerciser's Disk	1.0.2	Mar 5 85
ProDOS User's Disk	1.1.2	Feb 5 85
ProDOS Convert (CONVERT)	1.2	Feb 5 85
ProDOS Filer (FILER)	1.1	Jun 18 84
Update Utility for ProDOS	1.1.1	Sep 18 84
SANE		
SANE, Apple Pascal	1.0	Sep 22 83
ELEMS For A II & A III	1.1	Sep 21 83
APPL2.SANE	1.0	Sep 21 83
SCSI Hard Disk Test Program 3.5	1.0	Aug 6 86
SCSI Hard Disk Test Program 5.25	1.0	Aug 6 86
SuperPilot Log	1.1	Jun 25 84
System Utilities IIc & IIe	2.1.1	Oct 2 85

Q.C.

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Q.C.

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CATALOG/ORDER FORM

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DISK#	TITLE
( ) 1	UTILITIES #1
( ) 2	UTILITIES #2
( ) 3	TUTRL/INSTRL #1
( ) 4	GAMEPAC #1
( ) 5	GAMEPAC #2
( ) 6	GAMEPAC #3
( ) 7	IAC #4 MISCELLANEOUS
( ) 8	IAC #5 MISCELLANEOUS
( ) 9	CAT-GRAPHIX
( ) 10	FORMAN'S STATISTICS
( ) 11	UTILITIES #3
( ) 12	IAC #8 MISCELLANEOUS
( ) 13	GAMEPAC #4
( ) 14	GAMEPAC #5
( ) 15	EDUCATION #1
( ) 16	EDUCATION #2
( ) 17	ARCADE GAMES
( ) 18	GRAPHICS UTILITIES
( ) 19	APPLESOFT TUTORIAL
( ) 20	EDUCATION #4
( ) 21	UTILITIES #4
( ) 22	GAMEPAC #6 (APPLESOFT)
( ) 23	MORE GRAPHIC UTILITIES
( ) 24	GAMEPAC #7 (INTEGER)
( ) 25	BASEBALL STATISTICS
( ) 39	UTILITIES #5 (IAC#13)
( ) 40	HAYES MICROMODEM UTILITIES
( ) 41	GAMEPAC #8 (APPLESOFT)
( ) 42	GAMEPAC #9 (INTEGER)
( ) 43	CHRISTMAS
( ) 44	MONITOR ADJUST
( ) 45	NEW USER'S DISK (2-SIDES)
( ) 300	GAMEPAC #10 (APPLESOFT)
( ) 301	GAMEPAC #11 (INTEGER)
( ) 302	WAP ABBS - PART 1
( ) 303	WAP ABBS - PART 2
( ) 304	IAC #21 SPREADSHEET
( ) 305	SOFTGRAPH
( ) 306	IAC MACHINE LANGUAGE DISK
( ) 307	EDUCATION #5
( ) 308	PRE-SCHOOL GAMEROOM
( ) 309	APPLE DUMP UTILITIES
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( ) 312	APPLEWRITER][WPL & GLOSSARY

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( ) 321	CHEMISTRY PROJECT SERAPHIM
( ) 322	CHEMISTRY LAB DREYFUS INST.
( ) 323	CHEMICAL FORMULAS DREYFUS INST.
( ) 324	ASTRONOMY A & B (2-SIDES)
( ) 325	ASTRONOMY B & C (2-SIDES)
( ) 326	UTILITIES & ASST. PROGRAMS
( ) 327	DISK UTILITIES
( ) 328	APPLESOFT GAMES
( ) 330	GAMES & UTILITIES
( ) 331	MULTIPLICATION DRILL
( ) 332	DESK MASTER
( ) 333	GAMES & UTILITIES

PASCAL LIBRARY

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( ) 401	ATTACH BIOS
( ) 402	TEXT FORMATTERS
( ) 403	MISCELLANEOUS #1
( ) 404	DOS - PASCAL HYBRID
( ) 405	MISCELLANEOUS #2
( ) 406	GUERILLA GUIDE (FROM WAP)
( ) 407	MISCELLANEOUS #3 (FROM WAP)

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( ) 504	ZCPR2 DOCUMENTATION
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( ) 510	ORIGINAL ADVENTURE

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( ) 701	WASHINTON APPLE PIE CATALOG
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( ) 995	MEGA-TERM (COMMUNICATION)
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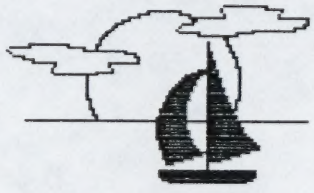
( ) 997	ONE-KEY DOS*
( ) 998	TOOLBOX (2-SIDES)*
( ) 999	DIVERSI-DOS*



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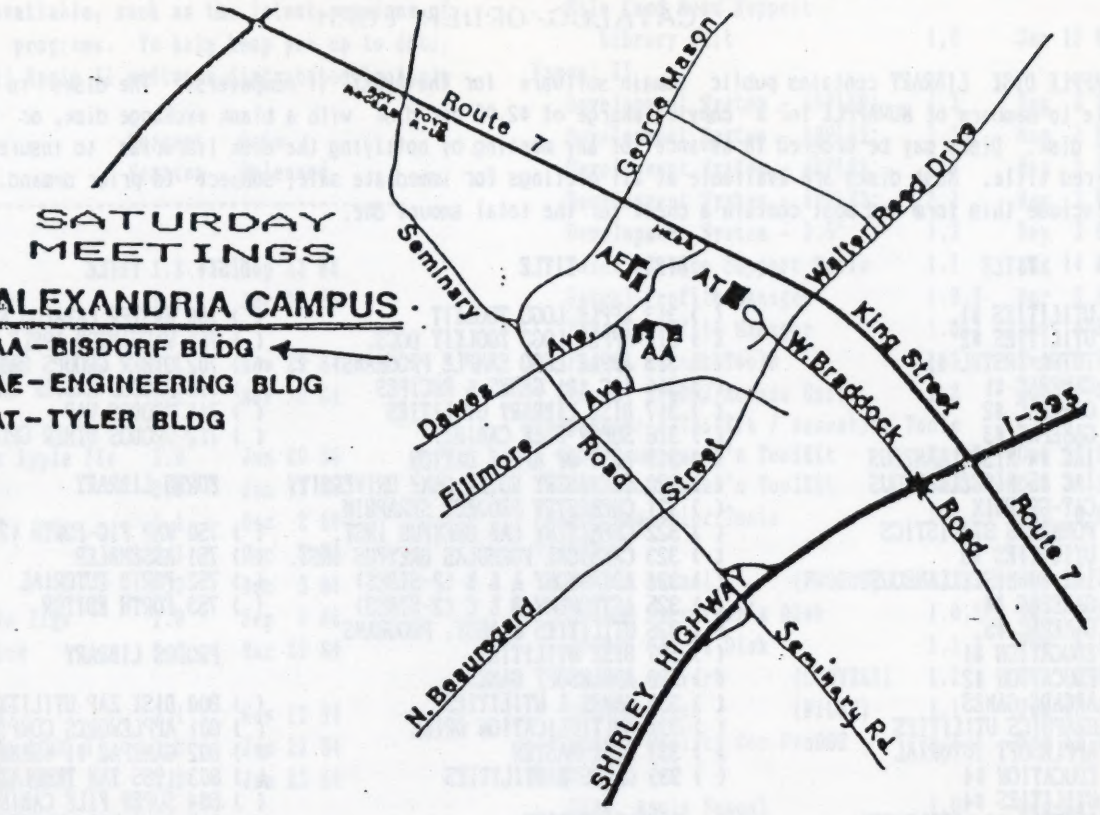
AA - BISDORF BLDG

AE - ENGINEERING BLDG

AT - TYLER BLDG



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